PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number (Optional) 58268.00136
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ Signature _____ Typed or printed Name _____	Application Number: 09/492,265 Filed: January 27, 2000
	First Named Inventor: Yi-Hsien HAO
	Art Unit: 2616 Examiner: Philpott, Justin M.

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
    Note: No more than five (5) pages may be provided.

I am the

☐   Applicant/Inventor.

☐   assignee of record of the entire interest.
    See 37 CFR 3.71. Statement under
    37 CFR 3.73(b) is enclosed

☒   Attorney or agent of record.
    Registration No._____51,091

☐   Attorney or agent acting under 37 CFR 1.34.
    Reg. No. is acting under 37 CFR 1.34 _____

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Signature

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July 27, 2006
_____
Date

NOTE: Signatures of all of the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐   *Total of _____forms are submitted.

In re the Application of:

Yi-Hsien HAO, et al.	Art Unit: 2616
Application No.: 09/492,265	Examiner: Philpott, Justin M.
Filed: January 27, 2000	Attorney Dkt. No.: 58268.00136

For: MEMORY STRUCTURE FOR RESOLVING ADDRESSES IN A PACKET-BASED NETWORK SWITCH

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450   July 27, 2006

Sir:

In accordance with the Pre-Appeal Brief Conference Pilot Program guidelines set forth in the July 12, 2005 Official Gazette Notice, Applicants hereby submit this Pre-Appeal Brief Request for Review of the final rejections of claims 1-60 in the above identified application. Claims 1-60 were finally rejected in the Office Action dated April 27, 2006. Applicants filed a Response to the Final Office Action on June 27, 2006, and the Patent Office issued an Advisory Action dated July 10, 2006 maintaining the final rejections of claims 1-60. Applicants hereby appeal these rejections and submit this Pre-Appeal Brief Request for Review.

The Final Office Action failed to establish prima-facie obviousness in rejecting the pending claims. Specifically, the cited references fail to disclose or suggest all of the limitations of any of the pending claims. This failure constitutes clear error in the Office Action.

The Office Action rejected claims 1-60 under 35 U.S.C. 103(a) as being obvious over US Patent No. 6,021,132 to Muller et al. (Muller), in view of US Patent No. 6,529,519 to Steiner et al. (Steiner), further in view of US Patent No. 5,860,136 to Fenner (Fenner), further in view of US Patent No, 6,614,796 to Black et al. (Black). The Office Action took the position that Muller taught all the elements of the claims 1-60, with the following exceptions of a single buffer per

packet mechanism, an index key and the key being a portion of the destination address. Steiner was cited as providing the single buffer per packet mechanism. Fenner was cited as providing the index key, and Black was cited as providing the key being a predefined portion of the destination address. Applicants respectfully submit that the cited references, either alone or in combination, fail to disclose or suggest all the features of any of the presently pending claims.

Claim 1, upon which claims 2-7 are dependent, recites a memory structure. An Address Resolution Table resolves addresses in a packet-based network switch and using a key to index a location within the Address Resolution Table wherein the key is a predefined portion of a packet destination address. A Packet Storage Table, is adapted to receive a packet for storage in the packet-based network switch, and sharing a preselected portion of memory with the Address Resolution Table. A single buffer per packet mechanism is configured to receive an individual packet for enabling only one transmit descriptor read per the individual packet and for enabling an execution of a single access in order to locate an entire packet at the location using the key. The entire packet is to be transmitted.

Independent claims 8, 13, 28, 32, 52, and 57 similarly include the feature of an Address Resolution Table resolves addresses in a packet-based network switch and using a key to index a location within the Address Resolution Table wherein the key is a predefined portion of a packet destination address.

Muller relates to shared memory management in a switch network element. Muller describes a shared memory manager 220 that is exploited by input and output ports 206 by locally storing pointers to buffers that contain packet data rather than locally storing the packet data. A predetermined number of buffer pointers are kept on hand to allow immediate storage of received packet data. The buffer pointers are preallocated during the initialization of switching element 100 and requested from shared memory manager 220. Pointers are queued to buffers that contain packet data, and not to the packet data itself. Further, a packet can be stored over more than one buffer. Each buffer in shared memory 230 is owned by one or more different ports at different points in time without having to duplicate the packet data.

Steiner relates to prioritized-buffer management for fixed size packets in a multimedia application. Steiner describes a memory system that includes a tag register for storing tags

associated with respective pages, wherein each tag indicates whether the associated page is empty or full.

Fenner relates to a method and apparatus for use of associated memory with large key spaces. Fenner describes an associative memory that utilizes a location addressable memory and a lookup table to generate, from a key, the address in memory storing an associated record.

Black is directed to transferring data through a Fibre Channel Arbitrated Loop (FCAL) switch. The FCAL switch uses multiple switch control circuits each coupled to one FCAL network, all of which are connected to a crossbar switch. The destination of each OPN is used to address a lookup table in each switch control circuit to determine if the destination node is local.

Applicants respectfully submit that the cited references, taken individually or in combination, fail to disclose or suggest all of the features of the above claims because Black fails to cure the admitted deficiencies of Muller, Steiner and Fenner, for the reasons set forth below.

Specifically, the cited combination of references fail to disclose or suggest at least the feature of an Address Resolution Table for resolving addresses in a packet-based network switch and using a key to index a location within the Address Resolution Table wherein the key is a predefined portion of a packet destination address, as recited in claims 1, 8, 13, 28, 32, 52 and 57. The Office Action alleged that Black cured these deficiencies in col. 8 lines 54-58.

Applicants respectfully submit that Black merely discloses using the destination address in the OPN primitive as a search key. Nowhere does Black disclose or suggest using a predefined portion of the destination address as a key to search a routing table, as recited in the pending claims. Thus, Black fails to cure the admitted deficiencies of Muller, Steiner and Fenner. This failure constitutes clear error in the Office Action.

In the "Response to Arguments" section, the Office Action asserted that even if this feature "if not directly taught by Black, and if not reasonably implied by Black through teachings of efficiency (see Black, col. 8 lines 10-32) or through teaching a search key that is distinct from the destination address (see col. 8 lines 54-55), using a predefined portion of the destination address in Black instead of using the entire destination address would have been obvious to one of ordinary skill in the art at the time of the invention in order to conserve a variety of system resources known in the art."

Applicant respectfully disagrees for the following reasons. The cited portion of Black (col. 8 lines 54-55) does not even mention, let alone disclose or suggest, that "a search key that is distinct from the destination address" as alleged in the Office Action. Instead, the section merely discusses the use of the destination address as a search key as one embodiment of the invention ("using the destination address in the OPN primitive as a search key . . ."). Black goes no further to disclose or suggest that a "pre-defined portion" of the destination address is used as a search key. Thus, the Office Action's argument that Black implies or renders obvious that a predefined portion of the destination address is used as a search key, improperly adds features to Black that are neither reasonably implied, nor inherent to the teachings of Black.

Thus, as previously argued, not only does Black fail to cure the admitted deficiencies of Muller, Steiner and Fenner, the inclusion thereof is the result of improper hindsight reasoning and piecemeal analysis, because the only motivation to do so, is obtained from the Applicants' disclosure.

It is well-established in United States patent law that a piecemeal analysis of a number of references, to extract a number of individual elements which are picked and chosen to recreate the claimed invention, is improper absent some teaching or suggestion in the references to support their use in the particular claimed combination. It is further improper to look to the Applicant's own disclosure for any such motivation or incentive. Interconnect Planning Corporation v. Feil, 227 USPQ 543 (Fed. Cir. 1985), Symbol Technologies Inc. v. Opticon, Inc., 19 USPQ 2d. 1241 (Fed. Cir. 1991), In re Rothermel and Waddel, 125 USPQ 328 (CCPA 1960), In re Jones, 21 USPQ 2d. 1941 (Fed. Cir. 1992).
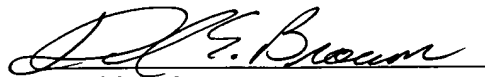
Applicants respectfully submit that there is no teaching or suggestion in the cited references to support the addition of Black to the combination of Muller, Steiner and Fenner. Thus, based at least on the above, Black fails to cure the admitted deficiencies of Muller, Steiner and Fenner. Accordingly, the cited references fail to disclose or suggest all of the features recited in claims 1, 8, 13, 28, 32, 52 and 57. This failure and the lack of existence of motivation to combine, constitutes clear error in the Office Action.

In the present case, Applicants respectfully submit that the Office Action's use of four references to form the basis for rejecting the pending claims, is an indication of piecemeal reconstruction of the Applicants' invention. Thus, there is no motivation, either in the references

themselves or in knowledge of one skilled in the art to combine the teaching of these references. This is further evidence of the non-obviousness of the present invention.

Reconsideration and withdrawal of the rejections, in view of the clear errors in the Office Action, is respectfully requested. In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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Enclosures: PTO/SB/33 Form
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